



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,084	03/02/2004	Todd W. Steigerwald	5867-00800	2937
35617	7590	02/24/2006		
DAFFER MCDANEIL LLP P.O. BOX 684908 AUSTIN, TX 78768			EXAMINER NGUYEN, DONGHAI D	
			ART UNIT	PAPER NUMBER
			3729	
DATE MAILED: 02/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/791,084	Applicant(s) STEIGERWALD ET AL.	
	Examiner Donghai D. Nguyen	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) 10-23 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-9 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9, drawn to a method for forming an apparatus configured to reducing electromagnetic interference between a pair of antennas, classified in class 29, subclass 825.
 - II. Claims 10-19, drawn to another method for forming an apparatus configured to reducing electromagnetic interference between a pair of antennas, classified in class 264, subclass 272.11.
 - III. Claims 20-23, drawn to further another method for forming an apparatus configured to reducing electromagnetic interference between a pair of antennas, classified in class 29, subclass 600.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because Group I does not required the inserting a liquefied substance into a mold. The subcombination has separate utility such as forming a plurality of resonant circuit element by molding.

3. Inventions of Groups I-II and Group III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the invention of Groups I-II do not required the selecting a ferrous-base materials to forming the resonant circuit elements in linear or array pattern. The subcombination has separate utility such as forming an apparatus having it length equal to one-half of a wavelength of the transmitted signal.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and the search required for Group I is not required for Group II or III, because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Charles D. Huston on February 7, 2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-23 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --METHOD FOR FORMING AN ELECTROMAGNETIC INTERFERENCE REDUCING DEVICE--.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,411,261 to Lilly.

Regarding claim 1, Lilly discloses a method for forming an apparatus (100, see Fig. 2B) configured to reduce electromagnetic interference between a pair of antennas coupled to a wireless communication device (See Col. 1, lines 37-40), the method comprises: extracting a shape of the apparatus from a thin sheet of conductive material (104, 304, 804; etc.); and folding the shape into a plurality of resonant circuit elements (see Figs. 10-12), each configured to resonate at or near a carrier frequency of a signal transmitted by one of the pair of antennas (see

Col. 1, lines 28-32). Note that each of the folded elements is a resonant circuit element see Fig. 2B of Lilly in comparison with Figs. 1 and 2A of US Patent 6,26,495 to Yablonovitch et al as an intrinsic evident).

Regarding claims 2-5, Lilly discloses the thin sheet of conductive material comprises a metal selected from a group comprising iron (Fe), copper (Cu), gold (Au), silver (Ag), tin (Sn), and nickel (Ni), or a metal alloy selected from a group comprising beryllium copper (BeCu), phosphor bronze (Ph+Cu/Zn/Sn), magnesium alloys (Mg/Al/O) and steel (Fe/C) and a primarily ferrous-based material is stamping and laser or chemical etching (See, Col. 4, lines 24-32). Note that since Lilly disclose the same the conductive material for forming the apparatus as claimed above. Therefore, it is inherently comprises a relative permittivity value of about 0.0 F/m to about 1.0 F/m and a relative permeability value of about 10 H/m to about 100,000 H/m.

Regarding claim 6, Lilly discloses the plurality of resonant circuit elements comprise a plurality of rectangular elements (1034 or 1134 see Figs. 10-11) connected to and arranged above a common reference plane (1004 or 1104) by a plurality of vertical segments (1006 or 1106).

Regarding claim 7, Lilly discloses a dielectric material (514) between the plurality of rectangular elements and the common reference plane.

Regarding claims 8-9, Lilly discloses the plurality of resonant circuit elements include A-shaped elements (see Fig. 7), further related Figs.8-12 show a plurality of relatively long domed elements spaced apart by a plurality of relatively thin slots.

Conclusion

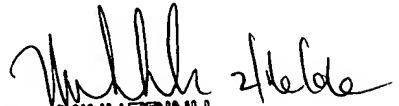
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references cited for their teaching of making a device that reducing electromagnetic interference between antennas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (571)-272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN
February 14, 2006


MINH TRINH
PRIMARY EXAMINER